



The Portuguese Version of Victim Empathy Distortion Scale: Adaptation and Psychometric Properties

Marta Sousa¹ · Olga Cunha^{1,2} · Rui Abrunhosa Gonçalves¹ · Andreia de Castro-Rodrigues³

Accepted: 24 September 2024
© The Author(s) 2024

Abstract

Victim empathy is a common intervention target in intervention programs designed for individuals who perpetrated child sexual abuse (CSA). Researchers have developed the Victim Empathy Distortion Scale (VES), an instrument designed to assess empathy for victims of CSA. The present study aims to adapt the VES for the Portuguese population and examine its psychometric properties. One hundred and twelve individuals who perpetrated CSA and 245 individuals from the community participated in this study. The confirmatory factor analysis did not show satisfactory indices for the structures previously tested. Consequently, the search for an alternative model revealed a two-factor structure, explaining approximately 50% of the total variance. Results also indicated good internal consistency, discriminant validity, and known-groups validity. Overall, the results support the claim that the Portuguese version of the VES is a valuable and psychometrically reliable instrument for measuring victim empathy in forensic and non-forensic settings.

Keywords Victim empathy · Child sexual offending · Exploratory factor analysis · Confirmatory factor analysis · Assessment

Empathy is fundamental for social interactions, as it facilitates the understanding and sharing of others' affective states (Hogan 1969). However, the term “empathy” lacked a consistent definition for an extended period (Cuff et al. 2016), evolving from a unidimensional to a multidimensional construct (e.g., Cohen and Strayer 1996; Hogan 1969; Jolliffe and Farrington 2004). Recently, the consensus among most theorists has shifted to view empathy as a multidimensional construct (Eklund and Meranius 2021; Morrow 2020), which encompasses cognitive empathy (i.e., the ability to identify and understand the emotions of others) and affective empathy (i.e., the ability to experience the same emotions as others) (Hogan 1969; Morrow 2020; Shamay-Tsoory et al. 2009).

Several studies have examined empathy in child sexual offending, yielding mixed findings (e.g., Cardona et al. 2018; Ferretti et al. 2021; Hockley and Langdon 2015; Morrow 2020; Sohn et al. 2022; Sousa et al. 2023a, 2023b; Tibbels et al. 2022). Some studies show that empathy is not compromised in individuals who perpetrated child sexual abuse (CSA), while others indicate deficits in its dimensions (Teuma et al. 2003). For instance, Morrow's (2020) meta-analysis showed that individuals who perpetrated CSA exhibited both general and cognitive empathy deficits compared to the general population, and not affective empathy deficits. However, the authors noted that by making comparisons with the general population rather than with other forensic populations, it could be concluded that the observed deficits may be symptomatic of the forensic population rather than a specific characteristic of men who perpetrate CSA. Consequently, 2 years later, Tibbels et al. (2022) compared individuals who perpetrated CSA with those who committed other types of crimes and found no significant differences in general empathy. However, they found that individuals who perpetrated CSA tended to display cognitive empathy deficits.

✉ Marta Sousa
martaasousaa@gmail.com

¹ Psychology Research Center (CIPSI), School of Psychology, University of Minho, Campus de Gualtar, 4710-057 Braga, Portugal

² Lusófona University, HEI-Lab: Digital Human-Environment Interaction Labs, Lisbon, Portugal

³ William James Center for Research & ISPA, Lisbon, Portugal

Victim Empathy

In addition to widespread generalized empathy deficits, some theorists have highlighted the existence of victim-specific deficits (Marshall et al. 2001). In a recent systematic review, 11 out of 12 studies showed that individuals who perpetrated sex crimes have empathy deficits toward (unknown) victims of sexual violence, compared with non-forensic samples. Furthermore, five studies revealed that the lowest levels of empathy are related to their victims (Tibbels et al. 2022). At the same time, most studies found that individuals who perpetrated CSA displayed lower levels of empathy for unknown victims compared to individuals who perpetrated non-sexual crimes (Tibbels et al. 2022). However, the etiology of these deficits remains undefined. Some authors posit that the empathy deficit is attributed to distorted thinking patterns rather than a genuine deficit in empathy. Specifically, it has been suggested that individuals who perpetrated CSA are aware of the impact of their actions on victims but cognitively distort this awareness to preserve their self-esteem and self-worth (Marshall and Marshall 2019; O'Shaughnessy 2009).

Nonetheless, victim empathy is a common intervention target in cognitive-behavioral treatment programs designed for individuals who perpetrated CSA (Gannon et al. 2019; Hanson et al. 2009; Lösel and Schmucker 2005; Sousa et al. 2022). However, it remains a controversial target. On one hand, most psychological interventions for individuals who have perpetrated CSA follow the risk-need-responsivity (RNR) model, which posits that only criminogenic factors should be addressed in treatment (Bonta and Andrews 2017). Currently, there is a lack of clear scientific evidence linking victim empathy to sexual recidivism (e.g., Hanson and Morton-Bourgon 2005). On the other hand, studies focusing on the perceptions of individuals who perpetrated CSA have identified the victim empathy module as the foremost target for change in psychological interventions (Colton et al. 2009; Dervley et al. 2017; Levenson et al. 2009). For instance, Colton et al. (2009) conducted individual interviews with 35 adult males who perpetrated CSA serving sentences at a UK prison, focusing on their views regarding the prison treatment program. They found that most participants in the study considered the victim awareness and empathy aspects of treatment to be the most helpful, as these components helped them understand their victim's pain and the impact of their offenses (Colton et al. 2009). Given the prevalence of this component in intervention programs and its potential impact, assessing victim empathy throughout treatment is essential for effectively monitoring progress.

Victim Empathy and Psychopathy

Psychopathy is characterized by a distinct pattern of interpersonal (e.g., deceitfulness and manipulation), affective

(e.g., lack of remorse, empathy, or guilt), and behavioral (e.g., irresponsibility and impulsivity) traits (Hare 2003). The defining characteristics of psychopathy, such as the ability to commit heinous acts without empathy for their victims, make it a crucial variable to consider when studying empathy towards victims of CSA (Woodworth et al. 2013). Numerous studies have demonstrated that individuals who perpetrated CSA often exhibit high scores on the affective facet of psychopathy, which is characterized by compromised empathy and a lack of guilt and concern for others (e.g., Schimmenti et al. 2014; Sohn et al. 2022; Sousa et al. 2023a, b).

Assessing Victim Empathy

Although several tools exist to measure cognitive and affective empathy, there are few instruments specifically designed to evaluate empathy towards victims. Beckett and Fisher (1994) were the first to identify victim-specific empathy deficits in individuals who perpetrated CSA. Based on their hypothesis, the authors developed the Victim Empathy Distortion Scale (VES) to assess victim empathy. The VES is widely used in Ireland and the UK to evaluate individuals who perpetrated CSA (Waldron et al. 2006). It is designed to measure an individual's understanding of the impact of CSA on victims and their beliefs about the victims' emotional responses to such contact. The scale includes items assessing individuals believe that victims derive pleasure from such contact, encourage it, could stop it, experience fear and guilt, or express a desire for similar experiences in the future. It is a self-report instrument consisting of 28 items assessed under a single-factor structure. Studies with male forensic samples have shown high internal consistency reliability ($\alpha=0.89$) and strong test-retest reliability (0.90 to 0.95) (Beech 1998; Beech et al. 1999; Fisher et al. 1999).

Moreover, the VES was translated and validated for the Ireland forensic population but failed to replicate the unidimensional structure of the original version (Waldron et al. 2006). Waldron et al. (2006) examined the factor structure of VES in a sample of male perpetrators of CSA ($n=203$), identifying a two-factor model (i.e., positive misattributions of pleasure and denial of negative feelings in the child). However, to the best of our knowledge, no subsequent confirmatory factor analysis has been conducted to validate this two-factor structure.

Despite the availability of other instruments to assess this construct (e.g., Child Molester Empathy Measure; Fernandez et al. 1999), the VES continues to be one of the most widely used scales to evaluate the effectiveness of intervention programs in enhancing empathy for victims (e.g., Jones and Chaplin 2020; Sousa et al. 2023a, 2023b; Tibbels et al. 2022). Its popularity is largely attributed to

its strong psychometric properties and its brevity compared to other available instruments.

Current Study

The need to adapt the VES to the Portuguese population stems from the lack of instruments that assess empathy for victims of sexual abuse. Recent literature has questioned the importance of victim empathy in psychological interventions. To facilitate future research, a valid measure is necessary to operationalize victim empathy and enable comparisons across different contexts and populations. Additionally, instruments are required to assess intervention needs and measure changes in empathy towards victims after psychological interventions, as victim empathy is a frequent target in these interventions. The VES's characteristics (i.e., brevity, quick response time) and psychometric properties (i.e., reliability) make it a promising tool for assessing victim empathy in various settings (i.e., forensic and non-forensic). Furthermore, the VES's factorial structure has not yet been thoroughly studied.

Thus, the present study aims to further test the psychometric properties of the VES using a sample of forensic adults (i.e., individuals who perpetrated CSA) and non-forensic Portuguese adults. Specifically, we will test whether the single-factor model proposed by the original authors of the scale or the two-factor model proposed by Waldron et al. (2006) fits the Portuguese version of the instrument. Additionally, we aim to explore the psychometric properties of the VES and its relationship to similar and opposite constructs such as psychopathy and social desirability. Furthermore, we will assess the known-groups validity of the VES.

By doing this, we hope to obtain a valid, reliable, and valuable instrument for assessing empathy toward victims of sexual abuse that can be used with Portuguese-speaking adults, thereby enhancing knowledge in this field.

Method

Participants

The study included data from two convenience samples: a forensic sample of individuals who perpetrated CSA and a non-forensic sample. The forensic sample was recruited from six national prisons and four community services in Portugal (i.e., probation services). Participants were selected using the following inclusion criteria: (a) being male; (b) being at least 16 years old at the time of the incident (the age of penal responsibility in Portugal is 16); (c) being convicted of child sexual offending; and (d) possessing the reading and writing abilities necessary to answer the instruments.

One hundred and twelve males who perpetrated CSA were recruited for the present study. This group included participants from prison ($n = 65$; 58.0%) and from the community ($n = 47$; 42.0%). The mean age of the participants was 45.19 ($SD = 14.58$), with nearly half were married/cohabiting ($n = 47$, 42.0%), and half completed 4 to 6 years of education ($n = 63$; 56.3%). The mean sentence length was 94.89 months ($SD = 48.30$) for participants in prison and 53.47 ($SD = 33.10$) for those in the community. Thirty-five individuals (32.1%) participated or were participating in treatment programs for their sexual offending behavior.

The non-forensic sample was recruited from the community using convenience sampling. This group included 245 participants, aged between 17 and 63 years ($M = 27.62$; $SD = 8.97$). Most participants were female ($n = 185$, 75.5%), with more than 12 years of education ($n = 174$, 71%). Additionally, the majority were single ($n = 202$; 82.4%) (see Table 1).

Procedures

Translation of VES

The initial step in validating the VES for the Portuguese population involved obtaining permission from the original authors. Subsequently, a team of three psychology researchers fluent in both Portuguese and English, with expertise in the field conducted the translation process. Two researchers translated the items into Portuguese, while a third researcher performed a back-translation into English. Finally, these versions were thoroughly reviewed and discussed to ensure linguistic accuracy and fidelity to the original version.

Data Collection

After receiving approval from the Ethics Committee for Research in Social and Human Sciences at the University of

Table 1 Sociodemographic characterization

	Forensic sample ($n = 112$) <i>N</i> (%)	Community sample ($n = 245$) <i>N</i> (%)
Marital status		
Single	39 (34.8)	202 (82.4)
Married/cohabiting	47 (42.0)	36 (14.7)
Divorced/separated	25 (22.3)	6 (2.4)
Widowed	1 (0.9)	1 (0.4)
Education		
4th grade	32 (28.6)	1 (0.4)
6th grade	31 (27.7)	-
9th grade	25 (22.3)	2 (0.8)
12th grade	19 (17.0)	68 (27.8)
More than 12th grades	5 (4.5)	174 (71.0)

[blind for peer-review purposes], a request was submitted to the General Directorate of Reintegration and Prison Services – Ministry of Justice [blind for peer-review purposes] to collect data in a forensic setting. Subsequently, arrangements were made with the respective institutions to schedule meetings, during which the study was explained, and data collection started. All contacted institutions agreed to participate in the study, resulting in 72 individuals identified in prison and 49 in the community.

Prior to participation, all potential participants were informed about the study's conditions, including assurances that their responses would remain confidential from treatment staff and that participation was voluntary, with no adverse consequences for choosing not to participate. Despite these assurances, six individuals in prison and two in the community initially declined to participate. Additionally, one individual in prison withdrew from the study while completing the instruments. All instruments were self-administered individually, after which relevant sociodemographic and penal information was collected from institutional files. Access to participants' individual files was granted only after obtaining written informed consent.

For the non-forensic sample, the VES and other measures were integrated into the Google Forms platform. The link to complete the questionnaires was distributed via email to the entire university community, including students, academic, and non-academic staff. Additionally, it was shared on social media platforms such as LinkedIn and Facebook to reach individuals outside the university. Participants were clearly informed about the voluntary and anonymous nature of the study, and no compensation or incentives were provided for participation. Upon agreeing to the terms and signing the online informed consent, participants provided information on their age, gender, country of origin, marital status, and education level.

All data collection procedures complied to ethical standards and procedures established in Portuguese legislation. Data were collected between October 2021 and June 2022, with strict adherence to ethical guidelines regarding privacy and data protection.

Measures

Victim Empathy Distortion Scale (VES)

The VES is a 28-item questionnaire (Beckett and Fisher 1994) designed to assess an individual's understanding of the impact of their offending on victims. The scale is filled out by individuals with their most typical victim in mind or by using a general scenario. The non-forensic sample completed the scale after being shown a hypothetical situation of CSA. It assesses the extent to which individuals believe victims encourage, enjoy, or can stop sexual contact; how a victim felt about such sexual contact; and whether victims would want it to happen again in the future. Respondents answer each item on a 5-point scale from 0 (strongly

disagree) to 4 (strongly agree). A higher score on this scale indicates a higher level of distorted attitudes and less empathy towards the victim of sexual abuse. VES revealed high internal consistency reliability ($\alpha=0.89$) and high test-retest reliability (0.90 to 0.95) (Beech 1998; Beech et al. 1999; Fisher et al. 1999). Internal consistency reliability statistics for the VES will be given later in this paper.

Self-Report Psychopathy Scale – Short Version (SRP-SF)

The SRP-SF (Paulhus et al. 2016) is a 29-item self-report that assesses four facets of psychopathy: interpersonal (INT), affective (AFF), lifestyle (LIF), and antisocial (ANT). Each subscale is composed of seven items, except ANT subscale. The INT subscale measures dissocial characteristics (e.g., "I would get a kick out of "scamming" someone"); AFF relates to the affective aspects (e.g., "I never feel guilty over hurting others"); LIF assesses impulsive and reckless behaviors (e.g., "I keep getting in trouble for the same things over and over"); and ANT refers to antisocial behaviors (e.g., "I have threatened people into giving me money, clothes, or makeup"). The ANT subscale comprises eight items; however, the item "committed a crime" is omitted in forensic samples, and the item "gang activity" is omitted in community samples. Items are scored on a 5-point Likert-type scale (1 = *strongly disagree* to 5 = *strongly agree*), and scores of each subscale are obtained by summing up the corresponding individual item scores. The Portuguese version of the SRP-SF demonstrated good validity and reliability (Seara-Cardoso et al. 2019). In our study, we used the total score and subscales of the SRP-SF, excluding the antisocial subscale due to its different scoring for forensic and non-forensic samples. The internal consistency for our study, measured by Cronbach's alpha, was INT = 0.76, AFF = 0.625, LIF = 0.72, and total = 0.85.

Marlowe-Crowne Social Desirability Scale – Short Form (MCSDS-SF)

The MCSDS-SF, consisting of 12 items, is a scale designed to evaluate individuals' tendency to provide socially desirable responses (Ballard 1992; Pechorro et al. 2012). Participants categorize the items as either true or false. The Portuguese version has demonstrated acceptable internal consistency (Kuder-Richardson = 0.60) (Pechorro et al. 2012), and in the present study, the coefficient alpha was 0.70.

Sociodemographic Questionnaire

Sociodemographic data were evaluated through a questionnaire developed for this study, assessing age, sex, country of origin, education level, and marital status. For the forensic sample, information regarding the legal process and juridic situation was also collected through individual file consultation.

Data Analysis

Initially, data were processed with IBM SPSS 27 and AMOS 27. Descriptive analysis was used to characterize the sample. Confirmatory factor analysis (CFA) was used to test the one-factor and two-factor structures already presented. The adjustment quality of VES was assessed using the following indexes: the ratio between chi-square and degrees of freedom (χ^2/df), comparative fit index (CFI), incremental fit index (IFI), root mean square error of approximation (RMSEA), and Akaike information criterion (AIC). A chi-square/degrees of freedom value ≤ 5 was considered acceptable, a value ≤ 2 was considered good, and $= 1$ very good (Marôco, 2014). A CFI and IFI were adequate if > 0.90 , whereas values ≥ 0.95 were good (Marôco, 2014). Regarding RMSEA, the value needs to be inferior to 0.10 to indicate adequate fit and ≤ 0.06 to indicate good model fit. The Akaike information criterion has no reference value, but the lower the better (Marôco, 2014). The CFA was performed on the scale items, and only items with standardized loading above 0.30 were retained (Nunnally and Bernstein 1994). Despite this, modification indexes were checked and used to improve model fit if necessary.

Then, we conducted an EFA using principal-axis factorizing with promax rotation and performed a parallel analysis to search for an alternative structure (Kahn 2006; Lloret-Segura et al. 2014) using JASP software. The internal consistency was calculated by analyzing the psychometric properties of the instrument through Cronbach's alpha (> 0.7 ; cf. Field 2017). Furthermore, commonalities, and explained variances were computed. Items with loadings on more than one factor and those with loadings lower than 0.30 in the EFA were excluded.

Convergent validity was tested using the Pearson correlation coefficient between VES and SRP-SF total score and the INT, AFF, and LIF subscales since these constructs are related. Discriminant validity was assessed using Pearson correlations between each VES subscale and the desirability scale, as these constructs are not expected to exhibit a significant relationship.

Known group validity was evaluated by comparing each score of VES between individuals who perpetrated CSA with members of community using independent sample *t* test. We hypothesize that individuals who perpetrated CSA will exhibit less victim empathy since it is a construct related to child sexual offending (e.g., Tibbels et al. 2022).

Results

CFA for the One-Factor Model and the Two-Factor Model

CFA was conducted to evaluate the structure of the VES, specifically testing the original one-factor structure (Beckett and Fisher 1994) and the two-factor structure proposed

by Waldron et al. (2006). The results indicated that the single-factor structure of the VES did not fit well with the data: $\chi^2/df = 6.691$; CFI = 0.646; IFI = 0.646; and RMSEA = 0.126. However, additional modifications were performed to try to obtain a satisfactory model fit for the VES. Ten items with standardized loading above 0.30 were excluded, which did not improve the model.

When the two-factor structure of the scale was tested, the goodness-of-fit indices were not acceptable: $\chi^2/df = 3.189$; CFI = 0.818; IFI = 0.818; and RMSEA = 0.091. To achieve a satisfactory model fit, it would be necessary to eliminate 12 items with loadings below 0.30. However, we chose not to do this, in order to maintain the conceptual clarity of the instrument with other versions.

Searching for an Alternative Model

Exploratory Factor Analysis (EFA)

An EFA was carried out to search for an alternative model. Before performing EFA, the adequacy of the data for factor analysis was assessed through the Bartlett test and Kaiser–Meyer–Olkin (KMO) measure. The Bartlett test and the KMO results showed that our data is adequate for analysis (KMO = 0.931; Bartlett's test, $\chi^2(378) = 5802.791$, $p < 0.001$).

Parallel analysis suggested a two-factor model. Consequently, a two-factor analysis with promax rotation was conducted. Examination of the factor loadings and communalities revealed that some items did not load at least at the 0.30 level, leading to the removal of two items (item 13 and item 26). Table 1 displays the factor loadings and communalities. These results demonstrate the questionnaire's good psychometric properties (see Table 2).

The first component—positive misattributions of pleasure in child sexual abuse—explains about 31% of the total variance, and the second component, negative attributions of child sexual abuse, explains about 16%. These two factors explained 47% of the variance. The VES factors in our sample (see Table 3) were negatively intercorrelated, as we predicted since they are opposite constructs, i.e., the higher the score on factor 1, the more positive misattributions of pleasure in sexual abuse, while the higher the score on factor 2, the more aware they are of the negative effects of abuse on the child.

The subscales showed good internal consistency: factor 1 with a Cronbach's alpha of 0.936 and factor 2 with a Cronbach's alpha of 0.895.

Convergent and Discriminant Validity

Correlation analysis between the factors of VES and SRP-SF revealed a significant positive correlation between factor 1

Table 2 Exploratory factor analysis standardized loadings and communalities

	Loadings	Communalities
Positive misattributions of pleasure in child sexual abuse		
1. Enjoyed what happened	.801	.382
2. Felt attracted to you	.744	.451
3. Took it all as a game	.368	.844
4. Had signaled beforehand that she/he might not mind what happened	.574	.647
5. Could have stopped this happening if she/he wanted to	.542	.616
6. Was sexually aroused (turned on) by you	.829	.326
7. Wanted the situation to go further	.846	.300
8. Was in control of the situation	.656	.537
9. Felt good about what happened	.866	.300
10. Felt safe in the situation	.843	.310
11. Was secretly excited by what had happened	.854	.300
12. Had pleasant sexual fantasies over what had happened	.764	.413
16. Secretly hoped that something like that may happen again	.615	.620
19. Had led you on	.561	.659
21. Had experienced something similar in the past	.433	.820
24. Would like to do something similar again if she/he had the chance	.783	.399
25. Was more sexually experienced than her/his age would suggest	.635	.586
29. Was able afterwards to forget what had happened	.420	.811
Negative attributions of child sexual abuse		
14. Was afraid in the situation	.830	.318
15. Thought about the situation afterward	.688	.512
20. Felt angry about what had happened	.685	.516
22. Felt victimized by you	.523	.733
23. Worried that someone would find out what happened	.693	.519
27. Was left feeling emotionally confused	.767	.415
28. Afterward felt dirty inside of herself/himself	.778	.377
30. Was harmed in the long term by what had happened	.771	.413

of the VES and all the subscales of the psychopathy scale. Concerning factor 2 of the VES and the SRP-SF, almost all the subscales of psychopathy and the total score revealed a negative significant correlation (see Table 3). As expected, the discriminant validity of the subscales with social desirability revealed nonexistent associations.

Known-Groups Validity

The use of the Independent Student's *t*-test showed statistically significant differences between the groups in the "positive misattributions of pleasure in child sexual abuse" dimension ($t = -12.058, p < 0.001$) and "negative attributions of child sexual abuse" ($t = 4.035, p < 0.001$). Individuals who perpetrated CSA scored higher in the factor "positive misattributions of pleasure in child sexual abuse" and less in the "negative attributions of child sexual abuse" than community members. The average scores in the two factors of individuals who perpetrated CSA were 20.83 ($SD = 14.59$) and 12.33 ($SD = 8.01$), respectively. By contrast, community

Table 3 Convergent and discriminant validity of VES with SRP-SF, and social desirability

	VES F1	VES F2
VES F1	-	-.200**
VES F2	-.200**	-
SRP-SF INT	.173**	.038
SRP-SF AFF	.212**	-.161**
SRP-SF LIF	.189**	-.113*
SRP-SF total score	.226**	-.106*
Social desirability	-.164	.045

VES F1 positive misattributions of pleasure in child sexual abuse, VES F2 negative attributions of child sexual abuse, VES Victim Empathy Distortion Scale, SRP-SF INT Facet 1 (Interpersonal) of Self-Report Psychopathy – Short Form, SRP-SF AFF Facet 2 (Affective) of Self-Report Psychopathy – Short Form, SRP-SF LIF Facet 3 (Lifestyle) of Self-Report Psychopathy – Short Form, SRP-SF total score total score of Self-Report Psychopathy – Short Form, BES-A AD BES adapted affective dimension, BES-A CD BES adapted cognitive dimension, BES-A total score total score of BES adapted

members scored 14.44 ($SD = 13.52$) for factor 1 and 22.56 ($SD = 6.01$) for factor 2.

Percentiles for each scale based on type of sample are shown in Table 4.

Discussion

The VES (Beckett and Fisher 1994) is a self-report instrument designed to assess victim empathy. Given the lack of validated measures for victim empathy in the Portuguese population and recognizing that victim empathy is a common target for psychological interventions with individuals who perpetrated CSA (Sousa et al. 2022), adapting the VES for the Portuguese context is of significant importance. Additionally, the development of a valid measure is essential for effectively operationalizing this construct and facilitating future research in this area. Furthermore, the factor structure of the VES has yet to be adequately tested. Therefore, the primary objective of this study was to adapt the VES and analyze its factor structure and psychometric properties in the Portuguese version.

The one-factor model proposed by the original authors of the scale and the two-factor model suggested by Waldron and colleagues (2006) did not demonstrate a good adjustment to data, as indicated by the CFA results. Furthermore, successive modifications led to a significant increase in correlations between errors without achieving acceptable goodness-of-fit indices (Marôco, 2014). While eliminating several items could have allowed for a better fit with standard indicators, we chose not to do so in order to maintain the conceptual clarity of the instrument in relation to other versions. Although a two-dimensional structure appears logical, some items in Waldron and colleagues' version do not theoretically align with the factors to which they are assigned. For example, item 29 (*Was able afterwards to forget what*

had happened), item 8 (*Was in control of the situation*), and item 25 (*Was more sexually experienced than her age would suggest*) do not reflect negative feelings in the child.

We decided to explore an alternative model using the EFA. The analysis revealed a new two-dimensional structure, distinct from the previously discussed two-factor model. The Portuguese version of the VES consists of two factors: the "positive misattributions of pleasure in sexual abuse" factor comprising 18 items, and the "negative attributions of child sexual abuse" factor comprising 8 items. The first dimension encompasses distorted beliefs about sexual abuse, portraying it as something positive for the victim, while "negative attributions of child sexual abuse" includes statements concerning the perception of CSA as negative a short and long term for the victim. Items were not included if they had loadings below 0.30 or loaded on more than one factor, resulting in the removal of two items.

The analysis of the internal consistency revealed excellent values, exceeding the recommended minimum (Cronbach's alpha of 0.70; cf. Field 2017). This indicates that the VES is a valuable tool for assessing empathy for victims of sexual abuse among both Portuguese community individuals and justice-involved individuals. Regarding discriminant validity, the VES subscales demonstrated the expected non-significant correlations with social desirability, as these constructs do not overlap.

Convergent validity results showed that factor 1 of the VES was significantly, positively, but weakly correlated with all the constructs of psychopathy. This suggests that individuals with higher psychopathy scores had more positive misattributions of pleasure, such as believing that the child enjoyed the sex. Moreover, factor 2 of the VES was significantly, negatively, and weakly correlated with almost all dimensions of psychopathy, indicating that individuals with higher scores on the affective and lifestyle facets had a reduced ability to identify the negative feelings in the child such as feeling worried, dirty, and angry. These findings align with previous research, which

Table 4 Percentiles for each subscale of the VES

	Forensic sample		Community sample	
	Positive misattributions of pleasure in child sexual abuse	Negative attributions of child sexual abuse	Positive misattributions of pleasure in child sexual abuse	Negative attributions of child sexual abuse
10	3.0	2.3	0.6	16.0
20	7.0	4.6	2.0	18.0
30	11.9	7.9	4.0	19.8
40	14.2	8.0	7.0	22.0
50	18.0	11.0	10.0	23.0
60	24.0	14.0	14.0	25.0
70	27.0	16.1	20.0	26.0
80	31.4	20.0	28.0	28.0
90	45.1	24.4	36.0	31.0

has shown that individuals with higher psychopathy scores often fail to develop an empathic response to the suffering of others (Cardona et al. 2018; Ferretti et al. 2021; Igoumenou et al. 2017; Sohn et al. 2022). However, the weak nature of these correlations suggests that future studies should consider using additional measures to further assess convergent validity.

The comparative analysis between groups revealed that individuals who perpetrated CSA scored significantly higher on both dimensions of the instrument than community participants. These findings align with previous studies indicating that individuals who perpetrate CSA exhibit more positive misattributions of pleasure and less insight into the feelings of their victims (Fisher et al. 1999; Tibbels et al. 2022). These results confirm the validity of the instrument across known groups. Nonetheless, it is important to note that the two samples in the study had different participant distributions based on gender. The forensic sample consisted entirely of males, while the non-forensic sample included a higher proportion of women. The literature also indicates that men tend to endorse more beliefs that justify CSA than women (e.g., Alcantara et al. 2019; Magalhães et al. 2022), which may influence the findings presented here. Consequently, future studies should replicate these results to establish known-groups validity. However, the current results should be interpreted in light of several limitations. First, individuals in the forensic sample may complete the scale with their own victim in mind or use a general scenario if they do not admit to the crime. In contrast, the community sample always answered based on a hypothetical scenario. Despite the good psychometric properties, these variations in response methods could influence the results. Second, the two samples were recruited with different methods—online survey for the community sample and paper-and-pencil for the forensic sample—which may impact how individuals respond to the instruments. Third, as the community participants completed the protocol online, only those with internet access could participate. Fourth, the forensic sample consisted entirely of men, while the community sample was predominantly women. Future studies on VES factor structure should include a more diverse sample, incorporating women. Fifth, the relatively small sample size is a limitation, as it constrained the use of CFA to validate the new two-factor model, increasing the likelihood of both Type I and Type II errors. Further psychometric procedures should be conducted in the future, such as CFA and convergent analysis with other measures.

Practical and Policy Implications

The VES is a short, easily applicable, and reliable self-report measure that can assist professionals working in forensic contexts. As a valid tool for assessing victim

empathy, the VES can support professionals in making informed decisions regarding individual management, treatment assignment, and treatment effectiveness evaluation when victim empathy is a treatment target (Marshall and Marshall 2019). Additionally, it is a valuable resource for professionals in community settings. However, while the brevity of the VES enhances its user-friendliness, it also poses a risk of allowing individuals with manipulative tendencies to skew their responses, highlighting the need to use it alongside other assessment tools to ensure a comprehensive understanding of empathy and intervention progress. Furthermore, public policies during the sentencing phase should prioritize the assessment of the perpetrators, requiring an assessment of a combination of psychological variables, including empathy for the victim.

Research has been less focused on people's perceptions of victims of sexual abuse, but it is important to study societal attitudes because of the possible impact on the victim (e.g., Kennedy and Prock 2016; Theimer et al. 2017). In this way, the VES can be a useful tool for that purpose. Overall, our findings support the two-factor model of the VES in both justice-involved and non-justice populations. Despite some limitations, the VES demonstrated good psychometric properties.

Funding Open access funding provided by FCTIFCCN (b-on). The study was conducted at the Psychology Research Center (PSI/01662), School of Psychology, University of Minho. Marta Sousa was funded by a Doctoral research grant from the Portuguese Foundation for Science and Technology, grant number 2020.06634.BD.

Data Availability As part of consenting to the study, survey respondents were assured that raw data would remain confidential and no personal data would be shared. The database will be made available upon request to martaasousaa@gmail.com.

Declarations

Ethical Approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

Informed Consent Informed consent was obtained from all individual participants included in the study.

Competing Interests The authors declare no competing interests.

Open Access This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will

need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>.

References

- Alcantara R, Shortway K, Premph B (2019) The relationship between social dominance orientation and child sexual abuse credibility assessment. *J Child Sex Abus* 28(4):400–416. <https://doi.org/10.1080/10538712.2019.1592271>
- Ballard R (1992) Short forms of the Marlowe-Crowne Social Desirability Scale. *Psychol Rep* 71:1155–1160
- Beckett RC, Fisher D (1994) Assessing victim empathy: a new measure. Paper presented at the 13th Annual Conference of the Association for the Treatment of Sexual Abusers, San Francisco, CA
- Beech A (1998) A psychometric typology of child abusers. *Int J Offender Ther Comp Criminol* 42:319–339
- Beech A, Fisher D, Beckett R (1999) An evaluation of the Prison Sex Offender Treatment Programme: a report for the Home Office by the STEP Team. Home Office, London
- Bonta J, Andrews DA (2017) *The psychology of criminal conduct*. Routledge
- Cardona N, Berman AK, Sims-Knight JE, Knight RA (2018) Covariates of the severity of aggression in sexual crimes: psychopathy and borderline characteristics. *Sexual Abuse* 32(2):154–178
- Cohen D, Strayer J (1996) Empathy in conduct-disordered and comparison youth. *Dev Psychol* 32:988–998. <https://doi.org/10.1037/0012-1649.32.6.988>
- Colton M, Roberts S, Vanstone M (2009) Child sexual abusers' views on treatment: a study of convicted and imprisoned adult male offenders. *J Child Sex Abus* 18(3):320–338. <https://doi.org/10.1080/10538710902918170>
- Cuff BM, Brown SJ, Taylor L, Howat DJ (2016) Empathy: a review of the concept. *Emot Rev* 8(2):144–153. <https://doi.org/10.1177/1754073914558466>
- Dervley R, Perkins D, Whitehead H, Bailey A, Gillespie S, Squire T (2017) Themes in participant feedback on a risk reduction programme for child sexual exploitation material offenders. *J Sex Aggress* 23(1):46–61. <https://doi.org/10.1080/13552600.2016.1269958>
- Eklund JH, Meranius MS (2021) Toward a consensus on the nature of empathy: a review of reviews. *Patient Educ Couns* 104(2):300–307. <https://doi.org/10.1016/j.pec.2020.08.022>
- Fernandez YM, Marshall WL, Lightbody S, O'sullivan C (1999) The child molester empathy measure: description and examination of its reliability and validity. *Sex Abuse-J Res Tr* 11(1):17–31. <https://doi.org/10.1177/107906329901100103>
- Ferretti F, Pozza A, Carabellese F, Schimmenti A, Santoro G, Mandarelli G, Gualtieri G, Carabellese F, Catanesi R, Coluccia A (2021) Non-intimate relationships and psychopathic interpersonal and affective deficits as risk factors for criminal career: a comparison between sex offenders and other offenders. *Front Psychol* 12:600370. <https://doi.org/10.3389/fpsyg.2021.600370>
- Field A (2017) *Discovering statistics using SPSS statistics*, 5th edn. Sage, London
- Fisher D, Beech A, Browne K (1999) Comparison of sex offenders to nonoffenders on selected psychological measures. *Int J Offender Ther Comp Criminol* 43(4):473–491
- Gannon TA, Olver ME, Mallion JS, James M (2019) Does specialized psychological treatment for offending reduce recidivism? A meta-analysis examining staff and program variables as predictors of treatment effectiveness. *Clin Psychol Rev* 73:101752. <https://doi.org/10.1016/j.cpr.2019.101752>
- Hanson RK, Bourgon G, Helmus L, Hodgson S (2009) The principles of effective correctional treatment also apply to sexual offenders: a meta-analysis. *Crim Justice Behav* 36(9):865–891. <https://doi.org/10.1177/0093854809338545>
- Hanson RK, Morton-Bourgon KE (2005) The characteristics of persistent sexual offenders: a meta-analysis of recidivism studies. *73(6):1154–1163*. <https://doi.org/10.1037/0022-006X.73.6.1154>
- Hare RD (2003) *Hare psychopathy checklist-revised* (2nd ed). Multi-Health Systems
- Hockley OJ, Langdon PE (2015) Men with intellectual disabilities with a history of sexual offending: Empathy for victims of sexual and non-sexual crimes. *J Intellect Disabil Res* 59(4):332–341. <https://doi.org/10.1111/jir.12137>
- Hogan R (1969) Development of an empathy scale. *J Consult Clin Psychol* 33:307–316. <https://doi.org/10.1037/h0027580>
- Igoumenou A, Harmer CJ, Yang M, Coid JW, Rogers RD (2017) Faces and facets: the variability of emotion recognition in psychopathy reflects its affective and antisocial features. *J Abnorm Psychol* 126(8):1066–1076. <https://doi.org/10.1037/abn0000293>
- Jolliffe D, Farrington DP (2004) Empathy and offending: a systematic review and meta-analysis. *Aggress Violent Beh* 9(5):441–476. <https://doi.org/10.1016/j.avb.2003.03.001>
- Jones E, Chaplin E (2020) A systematic review of the effectiveness of psychological approaches in the treatment of sex offenders with intellectual disabilities. *J Appl Res Intellect Disabil* 33(1):79–100. <https://doi.org/10.1111/jar.12345>
- Kahn J (2006) Factor analysis in counseling psychology research, training, and practice: principles, advances, and applications. *Couns Psychol* 34(5):684–718. <https://doi.org/10.1177/0011000006286347>
- Kennedy AC, Prock KA (2016) “I still feel like I am not normal”: a review of the role of stigma and stigmatization among female survivors of child sexual abuse, sexual assault, and intimate partner violence. *Trauma Violence Abuse* 1–16. <https://doi.org/10.1177/1524838016673601>
- Levenson JS, Macgowan MJ, Morin JW, Cotter LP (2009) Perceptions of sex offenders about treatment: satisfaction and engagement in group therapy. *Sexual Abuse* 21(1):35–56. <https://doi.org/10.1177/1079063208326072>
- Lloret-Segura S, Ferreres-Traver A, Hernández-Baeza A, Tomás-Marco I (2014) El análisis factorial exploratorio de los ítems: una guía práctica, revisada y actualizada. *Anales De Psicología* 30(3):1151–1169. <https://doi.org/10.6018/analesps.30.3.199361>
- Lösel F, Schmucker M (2005) The effectiveness of treatment for sexual offenders: a comprehensive meta-analysis. *J Exp Criminol* 1(1):117–146. <https://doi.org/10.1007/s11292-004-6466-7>
- Magalhães E, Graça J, Antunes C, Ferreira C, Pinheiro M (2022) Why are men more likely to endorse myths about child sexual abuse than women? Evidence from disposition and situation-based approaches. *Child Maltreat* 27(3):356–365. <https://doi.org/10.1177/1077559520988353>
- Marshall WL, Hamilton K, Fernandez Y (2001) Empathy deficits and cognitive distortions in child molesters. *Sex Abuse-J Res Tr* 13(2):123–130. <https://doi.org/10.1177/10790632010130020>
- Marshall WL, Marshall LE (2019) Empathy and sexual offending: theory, research and practice. In *Handbook of sexual assault and sexual assault prevention* (pp 229–239). Springer, Cham
- Morrow EP (2020) Cognitive, affective, and general empathy in individuals convicted of a sexual offense: a meta-analysis. *Sexual Abuse* 32(8):883–906. <https://doi.org/10.1177/1079063219858062>
- Nunnally J, Bernstein I (1994) *Psychometric theory*. McGraw-Hill, New York, NY
- O'Shaughnessy RJ (2009) The role of personality disorder in sexual offending. In: Saleh FM, Grudzinskas AJ, Bradford JM, Brodsky DJ (eds) *Sex offenders: identification, risk assessment, treatment,*

- and legal issues. Oxford University Press, New York, NY, pp 144–155
- Paulhus DL, Neumann CS, Hare RD (2016) The SRP-4: self-report psychopathy scale (4th ed). Multi-Health Systems
- Pechorro P, Vieira RX, Poiães C, Marôco J (2012) Contributos para a Validação duma Versão Curta da Escala de Desejabilidade Social de Marlowe-Crowne com Adolescentes Portugueses. *Arquivos De Medicina* 26(3):103–108
- Schimmenti A, Passanisi A, Caretti V (2014) Interpersonal and affective traits of psychopathy in child sexual abusers: evidence from a pilot study sample of Italian offenders. *J Child Sex Abus* 23(7):853–860. <https://doi.org/10.1080/10538712.2014.938210>
- Seara-Cardoso A, Queirós A, Fernandes E, Coutinho J, Neumann C (2019) Psychometric properties and construct validity of the short version of the Self-Report Psychopathy Scale in a Southern European sample. *J Pers Assess*. <https://doi.org/10.1080/00223891.2019.161729>
- Shamay-Tsoory SG, Aharon-Peretz J, Perry D (2009) Two systems for empathy: a double dissociation between emotional and cognitive empathy in inferior frontal gyrus versus ventromedial prefrontal lesions. *Brain* 132(3):617–662. <https://doi.org/10.1093/brain/awn279>
- Sohn JS, Reyes NC, Kim H (2022) Interpersonal and affective facets and items of the psychopathy checklist-revised (PCL-R) in predicting child sex offending. *J Interpers Violence* 37(9–10):NP6720–NP6732. <https://doi.org/10.1177/0886260520958411>
- Sousa M, Andrade J, Castro-Rodrigues A, Gonçalves RA (2022) The effectiveness of psychological treatment in adult male convicted for sexual offenses against children: a systematic review. *Trauma Violence Abuse* 1–15
- Sousa M, Cunha O, Gonçalves RA, de Castro-Rodrigues A (2023a) Intra and extra-familial child sexual abuse: the role of psychopathy. *Eur J Crim Policy Res* 1–22. <https://doi.org/10.1007/s10610-023-09551-z>
- Sousa M, Cunha O, Gonçalves RA, de Castro-Rodrigues A (2023b) To be or not to be empathic: the role of empathy in child sexual offending. *Eur J Crim Policy Res* 1–15. <https://doi.org/10.1007/s10610-023-09567-5>
- Teuma RT, Smith DI, Stewart AA, Lee JKP (2003) Measurement of victim empathy in intrafamilial and extrafamilial child molesters using the child molester empathy measure (CMEM). *Int J Forensic Psychol* 1(1):120–132
- Theimer K, Flood MF, Hansen DJ (2017) Child physical abuse and neglect. *Handbook of Behavioral Criminology*, pp 365–379
- Tibbels S, Benbouriche M, Przygodzki-lionet N (2022) Empathy deficits in individuals convicted of a sexual offense: a systematic literature review. *Victims Offend* 00(00):1–30. <https://doi.org/10.1080/15564886.2022.2137614>
- Waldron B, O'Reilly G, Randall P, Shevlin M, Dooley B, Cotter A, ... & Carr A (2006) Factor structures of measures of cognitive distortions, emotional congruence and victim empathy based on data from Irish child sex offenders. *Ir J Psychol* 27(3–4):142–149. <https://doi.org/10.1080/03033910.2006.10446237>
- Woodworth M, Freimuth T, Hutton EL, Carpenter T, Agar AD, Logan M (2013) High-risk sexual offenders: an examination of sexual fantasy, sexual paraphilia, psychopathy, and offence characteristics. *Int J Law Psychiatry* 36(2):144–156

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.